

Application No.: 10/669,153

Docket No.: JCLA12271

In the Claims

Please amend the claims as follows:

1. (currently amended) A fixed type constant velocity joint characterized by comprising:

a cylindrical joint outer ring having an inner spherical surface formed with a plurality of circumferentially equispaced axially extending track grooves,

a joint inner ring having an outer spherical surface formed with circumferentially equispaced axially extending track grooves paired with the track grooves in the joint outer ring,

a plurality of torque transmitting balls disposed in ball tracks defined by cooperation between the track grooves in the joint outer and inner rings, and

a cage for holding the torque transmitting balls disposed in said ball tracks, wherein

a center of curvature of the track grooves in the joint outer ring and a center of curvature of the track grooves in the joint inner ring are axially offset by the same distance with respect to ~~an joint center~~ a center of the fixed type constant velocity joint, each of the track grooves in the joint outer ring has an arcuate bottom in a mouth innermost side of the joint outer ring, and a straight bottom on a mouth opening side of the joint outer ring, each of the track grooves in the joint inner ring has an arcuate bottom on the mouth opening side of the joint outer ring, and a straight bottom on the mouth innermost side of the joint outer ring, and

a rear open end of said joint outer ring has an inner diameter larger than an outer diameter of the joint inner ring, an inner diameter surface of said cage is a surface having a shape such that a first region of the cage located forwardly of ~~an axial center~~ the center

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of the fixed type constant velocity joint is capable of controlling the forward movement of the joint inner ring while a second region of the cage located rearwardly of the ~~axial~~ center of the fixed type constant velocity joint is capable of allowing the axial movement of the joint inner ring.

2. (withdrawn) A fixed type constant velocity joint as set forth in Claim 1, characterized in that said torque transmitting balls are eight in number.

3. (original) A fixed type constant velocity joint as set forth in Claim 1, characterized in that the outer spherical surface is formed to extend to the rear of the joint inner ring while the end surface of a receiving section located rearwardly of said joint inner ring is formed with a concave spherical surface, whereby the outer spherical surface of said joint inner ring is axially supported by the concave spherical surface of said receiving section.

4. (withdrawn) A fixed type constant velocity joint as set forth in Claim 2, characterized in that the outer spherical surface is formed to extend to the rear of the joint inner ring while the end surface of a receiving section located rearwardly of said joint inner ring is formed with a concave spherical surface, whereby the outer spherical surface of said joint inner ring is axially supported by the concave spherical surface of said receiving section.

5. (withdrawn) A fixed type constant velocity joint as set forth in Claim 3, characterized in that the radius of curvature of the outer spherical surface of the joint inner ring is set smaller than that of the inner spherical surface of the cage.

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6. (withdrawn) A fixed type constant velocity joint as set forth in Claim 4, characterized in that the radius of curvature of the outer spherical surface of the joint inner ring is set smaller than that of the inner spherical surface of the cage.

7. (withdrawn) A fixed type constant velocity joint as set forth in Claim 3, characterized in that the outer spherical surface, which is formed in the rear of said joint inner ring, is provided by a member separate from the joint inner ring.

8. (withdrawn) A fixed type constant velocity joint as set forth in Claim 4, characterized in that the outer spherical surface, which is formed in the rear of said joint inner ring, is provided by a member separate from the joint inner ring.

9. (withdrawn) A fixed type constant velocity joint as set forth in Claim 5, characterized in that the outer spherical surface, which is formed in the rear of said joint inner ring, is provided by a member separate from the joint inner ring.

10. (withdrawn) A fixed type constant velocity joint as set forth in Claim 6, characterized in that the outer spherical surface, which is formed in the rear of said joint inner ring, is provided by a member separate from the joint inner ring.

11. (currently amended) A fixed type constant velocity joint as set forth in ~~any of Claims 1 and 3~~, characterized in that said receiving section is provided by a stem shaft fixed to the rear open end of the joint outer ring.

12. (currently amended) A fixed type constant velocity joint as set forth in ~~any of Claims 1 through 10~~ 3 or 5, characterized in that said receiving section is composed of a receiving member having a concave spherical surface formed in its end surface, and a stem shaft fixed to the rear open end of the joint outer ring through said receiving member.

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13. (currently amended) A fixed type constant velocity joint as set forth in ~~any of Claims 1 through 10~~ 3 or 5, characterized in that said receiving section is provided by a receiving member having a concave spherical surface formed in its end surface and fixed directly to the rear open end of the joint outer ring.

14. (currently amended) A fixed type constant velocity joint as set forth in any of Claims ~~1 through 10~~ 3 and 5, characterized in that the track grooves in said joint inner ring is formed within the range of a maximum operating angle and the area outside the range is formed with buildups to control the axial length of the track grooves.

15. (withdrawn) A fixed type constant velocity joint as set forth in Claim 11, characterized in that the track grooves in said joint inner ring is formed within the range of a maximum operating angle and the area outside the range is formed with buildups to control the axial length of the track grooves.

16. (withdrawn) A fixed type constant velocity joint as set forth in Claim 12, characterized in that the track grooves in said joint inner ring is formed within the range of a maximum operating angle and the area outside the range is formed with buildups to control the axial length of the track grooves.

17. (withdrawn) A fixed type constant velocity joint as set forth in Claim 13, characterized in that the track grooves in said joint inner ring is formed within the range of a maximum operating angle and the area outside the range is formed with buildups to control the axial length of the track grooves.

Claim 18. (canceled)

19. (previously presented) A fixed type constant velocity joint as set forth in Claim 1, characterized in that the center of curvature of the track grooves in the joint outer ring is located on an exterior side of the joint center, and the center of curvature of the track grooves in the joint inner ring is located on an interior side of the joint center.